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A simple method for estimating conduction velocity of the spinothalamic tract in healthy humans
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Somatosensory evoked high-frequency oscillations recorded directly from the human cerebral cortex
Y. Maegaki, I. Najm, K. Terada, H.H. Morris, W.E. Bingaman, N. Kohaya, A. Takenobu, Y. Kadonaga, H.O. Lüders (USA, Japan) 1916
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Power spectra and coherence in the EEG of a vegetative patient with severe asymmetric brain damage
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Integrative Neuroscience. Bringing Together Biological, Psychological and Clinical Models of the Human Brain – E. Gordon (Ed.)
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